

Participant Questionnaire

Participant number: 13

Date: 7/4/2023

Location: Brescia, IT

HRC Study / Algorithms tested: HAMP, STAP-PPF

Study Conducted by: Jared Flowers

Participant link lengths/dimensions: (meters, "spine" is pelvis to shoulder midpoint, "shoulders" is shoulder to shoulder)

Spine	
Neck	
Shoulders	<u>.32</u>

Left Upper Arm	<u>.35</u>
Left Forearm	<u>.28</u>

Right Upper Arm	<u>.37</u>
Right Forearm	<u>.29</u>

Participant joint diameter: (meters)

Left Elbow	<u>.09</u>
Left Wrist	<u>.063</u>

Right Elbow	<u>.085</u>
Right Wrist	<u>.063</u>

Questions:

- A. How safe did you feel? (0 is not safe at all, 5 is neutral, 10 is very safe)
- B. Do you think the robot hindered your motions during the task? (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)
- C. Did the robot perform logical motions? (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)
- D. What is your overall satisfaction with the HRC task? (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)

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For Task 1 (engine parts): (circle your answer to each question)

Task 1, Method 1: 2										
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)										
0	1	2	3	4	5	6	7	(8)	9	10
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)										
0	1	2	3	4	5	6	7	8	9	(10)
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)										
0	1	2	3	4	5	6	(7)	8	9	10
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)										
0	1	2	3	4	5	6	7	8	(9)	10

Task 1, Method 2: 3										
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)										
0	1	2	3	4	5	6	(7)	8	9	10
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)										
0	1	2	3	4	5	6	7	(8)	9	10
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)										
0	1	2	3	4	5	(6)	7	8	9	10
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)										
0	1	2	3	4	5	6	7	(8)	9	10

Task 1, Method 3: 1										
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)										
0	1	2	3	4	5	6	7	(8)	9	10
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)										
0	1	2	3	4	5	6	7	8	9	(10)
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)										
0	1	2	3	4	5	6	(7)	8	9	10
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)										
0	1	2	3	4	5	6	7	8	(9)	10

Comments:

For Task 2 (Sharework parts: metal tabs, cylinders, pallets): (circle your answer to each question)

Task 2, Method 1:											2
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)											
0	1	2	3	4	5	6	7	8	9	10	
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)											
0	1	2	3	4	5	6	7	8	9	10	
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)											
0	1	2	3	4	5	6	7	8	9	10	
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)											
0	1	2	3	4	5	6	7	8	9	10	

Task 2, Method 2:											3
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)											
0	1	2	3	4	5	6	7	8	9	10	
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)											
0	1	2	3	4	5	6	7	8	9	10	
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)											
0	1	2	3	4	5	6	7	8	9	10	
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)											
0	1	2	3	4	5	6	7	8	9	10	

Task 2, Method 3:											1
Question A: (0 is not safe at all, 5 is neutral, 10 is very safe)											
0	1	2	3	4	5	6	7	8	9	10	
Question B: (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)											
0	1	2	3	4	5	6	7	8	9	10	
Question C: (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)											
0	1	2	3	4	5	6	7	8	9	10	
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)											
0	1	2	3	4	5	6	7	8	9	10	

Comments: T2-m4: A 8 B 8 C 8 D 8
 T2-m5: A 9 B 9 C 9 D 9
 Experience = 10